Taurus, Aries, Pegasus, and Aquila. Pressure, 29.89; temperature, -38.0° F.; wind, northeast at 20 miles per hour.

February 2, 1899, 5 p. m.—Aurora, light beams ascending from Canis Minor, in the east-northeast, crossing Gemini, and continuing thence as a light gold wire band across Lynx, Ursa Major, the tail of Draco, Ursa Minor, the body of Draco, Cepheus, Cygnus, and Lyra to Aquila. Pressure, 29.84; temperature, —41.0° F.; wind, north at 27 miles per hour.

February, 5, 1899, 3 p. m.—Aurora, springing from Leo Major, (in the east), and crossing Leo Minor, the forepaws and head of Ursa Major, Lynx, Camelopardus, Cassiopeia, and Cygnus. Pressure, 29.78; temperature, -11.5 F.; wind,

east at 26.2 miles per hour.

February 8, 1899, 7 p. m.—Aurora, a golden arch springing from Leo Major, in the east-northeast, crossing the forepaws and head of Ursa Major, Lynx, Camelopardus, Cassiopeia, Cepheus, and Lacerta, the lower wing of Cygnus and Vulpecula, and terminating upon Aquila, in the west. Pressure, 29.25; temperature, —22.0° F.; wind, north, light.

February 9, 1899, 5 p. m.—Aurora, a light streamer arch from Leo Major, in the east, and crossing the constellations, thence through the zenith westward. Pressure, 29.64; tem-

perature, —32.5 F.; wind, southwest, very light.

February 15, 1899, 4 to 7 p. m.—Aurora, plainly visible in the east and south at 4 p. m., but veiled by fog. Stars invisible. 7 p. m., bright golden arcs and arches extending from Leo Major, in the east, across Cancer, Gemini, Auriga, Taurus, Aries, Pegasus, etc., westward to Aquila. Display invisible by reason of fog or heavy mist at times. Pressure, 30.20 to 30.22; temperature, -6.0° to -10.0° F.; wind, north at 9.5 miles per hour.

February 16, 1899, 8 p. m.—Aurora, very active display of yellow arcs and patches covering the heavens from the eastern to the western horizon for a space of about 90° in width and visible through a murky sky and light fall of snow. Occasionally stars visible. Pressure, 30.18; temperature, -6.0°

F.; wind, north, light.

February 23, 1899, 9 p. m.—Aurora, golden arcs extending from the feet of Bootes in the east-northeast across Leo Major, Cancer, the feet of Gemini, and the belt of Orion to Cetus in the southwest. Wave like motion from west to east. Pressure, 30 17; temperature, -30.7° F.; wind, northeast, light.

March 2, 1899, 8 p. m.—Aurora, a faint silvery arc springing from Leo Major (in the east-southeast), and crossing Leo Minor, Lynx, and Camelopardus, to the feet of Cassiopeia. Pressure, 30.35; temperature, —35° F.; wind, north at 10

miles per hour.

March 3, 1899, 8 p. m.—Aurora, an intense display of coronal type, covering the heavens from the belt of Orion in the southsouthwest to the lower limbs of Hercules in the north, and from Virgo in the east to Pegasus and Pisces in the west. Rapid movement of streamers and curtains from west to east and from south to north. Delicate tinting of the display in all its parts, but particularly striking along the edges of the enveloping or outer curtains. Central or zenithal portion less tenuous than the parts nearer the horizon. Pressure, 30.30; temperature, —41° F.; wind, north, light.

March 10, 1899, 11 p. m.—Aurora, the heavens from the

feet of Bootes in the east to the head of Cetus in the west; from the paws of Leo Major in the south to Pegasus in the north, curtained, festooned, tapestried, arched, and pillared in gold and silver, in purple and lilac, and red-green, all waving, trembling, tumbling, and leaping in every imaginable direction. And yet, why, at the same time, that motionless shaft upon the head of Taurus or that quiescent arc amidst a vortex of motion? Pressure, 29.75; temperature,

-32.0° F.; wind, west, very light. March 11, 1899, 9:45 p.m.—Aurora, yellowish bands, extend-

Canis Minor, in the east, the head and shoulders of Orion, |ing from east to west across the space between the back of Leo Major, in the south, and Polaris. The sky much clouded and a minute description of the display impossible. Pressure, 29.95; temperature, —24.0° F.; wind, north, light.

March 13, 1899, 11 p. m. to 12 midnight.—Aurora, pink-

tinted arcs and dancing shafts upon Gemini and Auriga, in the southwest. 12 midnight, golden haze upon Leo Minor. Pressure, 30.28; temperature, -33.0° to 33.0° F.; wind, north,

## MEXICAN CLIMATOLOGICAL DATA.

Through the kind cooperation of Senor Manuel E. Pastrana, Director of the Central Meteorologic-Magnetic Observatory, the monthly summaries of Mexican data are now communicated in manuscript, in advance of their publication in the Boletin Mensual. An abstract, translated into English measures, is here given, in continuation of the similar tables published in the Monthly Weather Review since 1896. The barometric means have not been reduced to standard gravity, but this correction will be given at some future date when the pressures are published in our Chart IV.

Mexican data for March, 1901.

Stations.	Altitude.	Mean ba- rometer.	Temperature.			LIVe lity.	ita-	Prevailing direction.	
			Max.	Min.	Mean.	Relative humidity.	Precipi tion.	Wind.	Cloud.
Durango (Seminario). Leon (Guanajuato) Linares (Nuevo Leon). Mazatlan Merida Merida Merida (Seminario). Puebla (Col. Cat.) Saitillo (Col. S. Juan). San Luis Potosi Zapotlan (Seminario)	25 50 7, 472 6, 401 7, 112	Inch. 24. 02 24. 30 28. 64 29. 95 29. 98 23. 96 23. 96 23. 96 24. 75 24. 10 25. 10	88.2 85.5 101.8 80.8 92.8 84.2 88.4 86.0 86.2 90.7	0 F. 85.6 84.0 42.8 63.9 57.0 85.4 48.8 82.0 89.6 89.2	0 F. 59.4 63.0 70 5 72.1 75.6 60.6 59.9 62.6 61.7 62.8 64.4	\$88 37 51 76 68 87 47 42 69 54	T. 0.08 0.01 0.03 T.	sw. nw. s. nw. ne. sw. s. e. s. sw.	W. SW. S, W. SW. W. SSW. S. W.

## RECENT PAPERS BEARING ON METEOROLOGY.

W. F. R. PHILLIPS, in charge of Library, etc.

The subjoined list of titles has been selected from the contents of the periodicals and serials recently received in the library of the Weather Bureau. The titles selected are of papers or other communications bearing on meteorology or cognate branches of science. This is not a complete index of the meteorological contents of all the journals from which it has been compiled; it shows only the articles that appear to the compiler likely to be of particular interest in connection with the work of the Weather Bureau:

Comptes Rendus. Paris. Tome 132.

Angot, A. Sur la variation diurne de la déclinaison magnétique. P. 317.

Symons's Meteorological Magazine. London. Vol. 36.

Curtis, R. H. Pressure of the Wind. P. 2.

Gaea. Leipzig. 37 Jahrg.

Elster, J. und Geitel, H. Beiträge zur Kenntnis der atmosphärischen Elektricität. P. 142.

Wollny, E. Ueber den Einfluss der Pflanzendecken auf die Was-

serführung der Flusse. P. 162.

Memorias y Revista, Sociedad Cientifica "Antonio Alcate." Mexico. Tomo 15. Morena y Anda. Correcciones que deben aplicarse á la media diurna de la temperatura deducida de pocas observaciones. Pp. 5-11.

Geographische Zeitschrift. Leipzig. 7 Jahrg.
Hann, J. Wissenschaftliche Luftfahrten. Pp. 121-140.

Nature. London. Vol. 63.

Judd, J. W. Recent "Blood Rains." Pp. 514-515.

Bryan, G. H. History and Progress of Aprial Locomotion. Pp.

526-527.

Hayward, R. B. Audibility of the Sound of Firing on February Pp. 538-540.

Buchanan, J. Y. Solar Calorimeter depending on the rate of generation of Steam. Pp. 548-551.